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ABSTRACT

A comparative study was conducted to investigate the relationship cf the multiunit school organizational structure and Individually Guided Education to the learning climate of pupils. The responses of 410 pupils in traditionally crganized schools were compared to the responses of 566 multiunit school pupils on several attitudinal measures including self-concept as learners; and their attitudes toward instruction, other pupils, teachers, administration, plant, community, and school in general. Analysis of variance indicated that the multiunit school pupils generally had a more positive attitude than did the control pupils on all measures, with the exception of attitudes toward teacher and administration where no difference was found. (Author)

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AN ANALYSIS OF THE RELATIONSHIPS OF THE MULTIUNIT SCHOOL ORGANIZATIONAL STRUCTURE AND INDIVIDUALLY GUIDED EDUCATION TO THE LEARNING CLIMATE OF PUPILS

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Since 1965, the Wisconsin Research and Development Center for Cognitive Learning and several cooperating agencies have been developing and refining an alternative approach to traditional elementary education known as Individually Guided Education (IGE). Individually Guided Education, with its organizational-administrative component termed the multiunit school-elementary (MUS-E) has been described by one of its originators as: "The first alternative to the age-graded, self-contained elementary school in this century. It is a comprehensive system designed to produce higher educational achievement through providing effectively for differences among students in rate of learning, learning styles and level of motivation."[1]

The purpose of this study was to investigate the relationship of IGE/MUS-E to the learning climate of pupils. In this study, learning climate was defined as a combination of those behavioral and attitudinal variables in a pupil's

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[1] Herbert J. Klausmeier, "The Multiunit Elementary School and Individually Guided Education," phi delta kappan, Vol. LIII (1971), pp. 181-186.

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immediate school setting which may affect learning. They included a pupil's attitude toward several factors related to school morale and his self-concept as a learner.

The study involved three major theoretical constructs. They were: IGE/MUS-E theory with its focus upon meeting individual learning needs; social system theory as it relates to the classroom; and instructional theory as it relates to learning climate and self-concept. A review of the literature related to these constructs revealed theoretical and empirical support for the following underlying assumption of the study: An individualized program of instruction which attempts to accomodate the personal need disposition of the learner and the goals of the organization is conducive to a positive attitude toward school morale and the self-concept of the learner.

The major question posed in the study was: Is the IGE/MUS-E organizational structure characterized by a different learning climate than the traditional self-contained organizational structure? To answer this question, the following null hypotheses were tested:

1. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their self-concept as learners.

2. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward their fellow pupils.

3. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward teachers.

4. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward instruction.

5. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward school in general.

The instruments and unobstrusive measures employed in the study also permitted analysis of the following ancillary hypotheses:

1. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward the school plant.

2. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward the school administration.

3. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward the community.

4. No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their record of tardiness and attendance.

A comparison experimental-control design utilizing traditional self-contained classroom schools as controls was employed. A sample of IGE/MUS-E schools located in Wisconsin was selected using the 1972 Directory of Multiunit Schools, based on the following criteria: The school must be a fully functioning IGE/MUS-E, must be in at least its second year of operation, and must contain pupils in the 9-12 age range (upper unit).

The control schools were matched on the criteria of geographic location, size, and socio-economic background. They contained pupils of the 9-12 age range (5th grade) and had been functioning as a traditional, self-contained school for at least one year. The sample drawn included 25 schools, including 13 IGE/MUS-E and 12 control schools. These schools provided 566 and 410 pupils, respectively.

The instruments chosen for gathering data on learning climate included the School Morale Scale with seven subscales, and the Semantic Differential of Self-Concept as a learner. These instruments were combined and modified for

use in the study as indicated by a pilot test. The pilot test was conducted in one IGE/MUS-E school and one control school, exclusive of the study's sample. Attendance and tardiness data were also collected from schools in the sample, using the total enrollment of each school.

A multivariate analysis of variance of data obtained from the scales related to learning climate was performed to answer the global question. Univariate tests were employed to test the individual hypotheses with the exception of the hypothesis concerning attendance-tardiness, where a t test was utilized. Separate computer runs were made for each school pair, and for all data combined. A separate run was also made excluding District 13, as this school district contributed an unusually large percentage (20%) of the total sample. Also data collection in the experimental school of this district occurred under what appeared to be adverse conditions.

The probability level for all tests of statistical signigicance was established at .05.

Findings and Conclusions

Analysis of data collected on the School Morale Scale, the Semantic Differential of Self-Concept as a Learner, and attendance and tardiness forms produced the following results.

The global questions: Is the IGE/MUS-E organizational structure characterized by a different learning climate than the traditional self-contained organizational structure?

Finding: A multivariate analysis of the scales -- learner self-concept, other pupils, teachers, instruction, and school morale -- indicated that pupils in IGE/MUS-E schools scored significantly higher on the measures termed "learning climate" than did the pupils in traditional schools.

Hypotheses 1: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their self-concept as learners.

Finding: Pupils in IGE/MUS-E schools scored significantly higher than the pupils in traditional schools on the measure of self-concept as a learner only when data for District 13 were excluded from the analysis.

Hypothesis 2: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward their fellow pupils.

Finding: Pupils in IGE/MUS-E schools scored significantly higher than the pupils in traditional schools on the measure of pupil attitude toward fellow pupils.

Hypothesis 3: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward teachers.

Finding: No significant difference was found between the pupils in IGE/MUS-E schools and the pupils in traditional schools on the measure of pupil attitude toward teachers.

Hypotheses 4: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward instruction.

Finding: Pupils in IGE/MUS-E schools scored significantly higher than the pupils in traditional schools on the measure of pupil attitude toward instruction only when data from District 13 were excluded from the analysis.

Hypothesis 5: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward school in general.

Finding: Pupils in IGE/MUS-E schools scored significantly higher than the pupils in traditional schools on the measure of pupil attitude toward school in general (school morale).

Ancillary Hypotheses

Hypothesis 1: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward the school plant.

Finding: Pupils in IGE/MUS-E schools scored significantly higher than the pupils in traditional schools on the measure of pupil attitude toward their school plant.

Hypothesis 2: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward the school administration.

Finding: No significant difference was found between pupils in IGE/MUS-E schools and pupils in traditional schools on the measure of pupil attitude toward administration and staff.

Hypothesis 3: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their attitude toward the community.

Finding: Pupils in IGE/MUS-E schools scored significantly higher than the pupils in traditional schools on the measure of pupil attitude toward their community.

Hypothesis 4: No difference exists between pupils in IGE/MUS-E schools and pupils in traditional schools with regard to their record of tardiness and attendance.

Finding: No significant difference was found between pupils in IGE/MUS-E schools and pupils in traditional schools on attendance and tardiness reports.

Analysis of individual school pairs revealed that, with the exception of Districts 1 and 13, pupils in the IGE/MUS-E schools generally obtained higher (more positive) scores than did pupils in the traditional schools. Means for all scales and subscales were higher for pupils in IGE/MUS-E schools than for pupils in traditional schools, with the exception of the subscale, "teachers."

Based on the findings of the study, the following conclusions were drawn with respect to IGE/MUS-E schools:

1. Pupils in IGE/MUS-E schools exhibited a more positive learning climate than did pupils in traditionally organized schools.

2. Pupils in IGE/MUS-E schools generally appeared to have a more positive self-concept as learners than did pupils in traditionally organized schools.

3. Pupils in IGE/MUS-E schools displayed a more positive attitude toward their fellow pupils than did pupils in traditionally organized schools.

4. There was no difference between IGE/MUS-E pupils and pupils in traditionally organized schools with respect to their attitude toward teachers.

5. Pupils in IGE/MUS-E schools generally appeared to have a more positive attitude toward instruction than did pupils in traditionally organized schools.

6. Pupils in IGE/MUS-E schools revealed a more positive attitude toward school in general (school morale) than did pupils in traditionally organized schools.

7. Pupils in IGE/MUS-E schools had a more positive attitude toward their school plant than did pupils in traditionally organized schools.

8. There was no difference between IGE/MUS-E pupils and pupils in traditionally organized schools with respect to their attitude toward administration

and staff.

9. Pupils in IGE/MUS-E schools exhibited a more positive attitude toward their community than did pupils in traditionally organized schools.

10. There was no difference between IGE/MUS-E school pupils and pupils in traditionally organized schools with respect to their records of attendance and tardiness.

The conclusions drawn from this study must, of course. be limited to the population of IGE/MUS-E and control schools from which the sample was selected. The results are further restricted by the abstract nature of such concepts as "learning climate" and "school morale," and by the limitations of self report instruments which measure perceptions rather than behavior Generalizability in a comparative study of this nature must necessarily be constrained by the degree to which the reader can accept the assumptions underlying both the theoretical framework and the statistical procedures employed in the study.

Implications

The researcher believes that the evidence concerning IGE/MUS-E schools that has been accumulated and presented in this study warrants the following implications for practice and for future research.

Implications for Practice

Although it is recognized that there can be no complete separation of thought and feeling affecting human behavior, in recent years there has been increasing emphasis on that hazily defined area of a pupil's life labeled the affective domain. Those educators whether they be school board members, administrators or classroom teachers who include in their list of educational

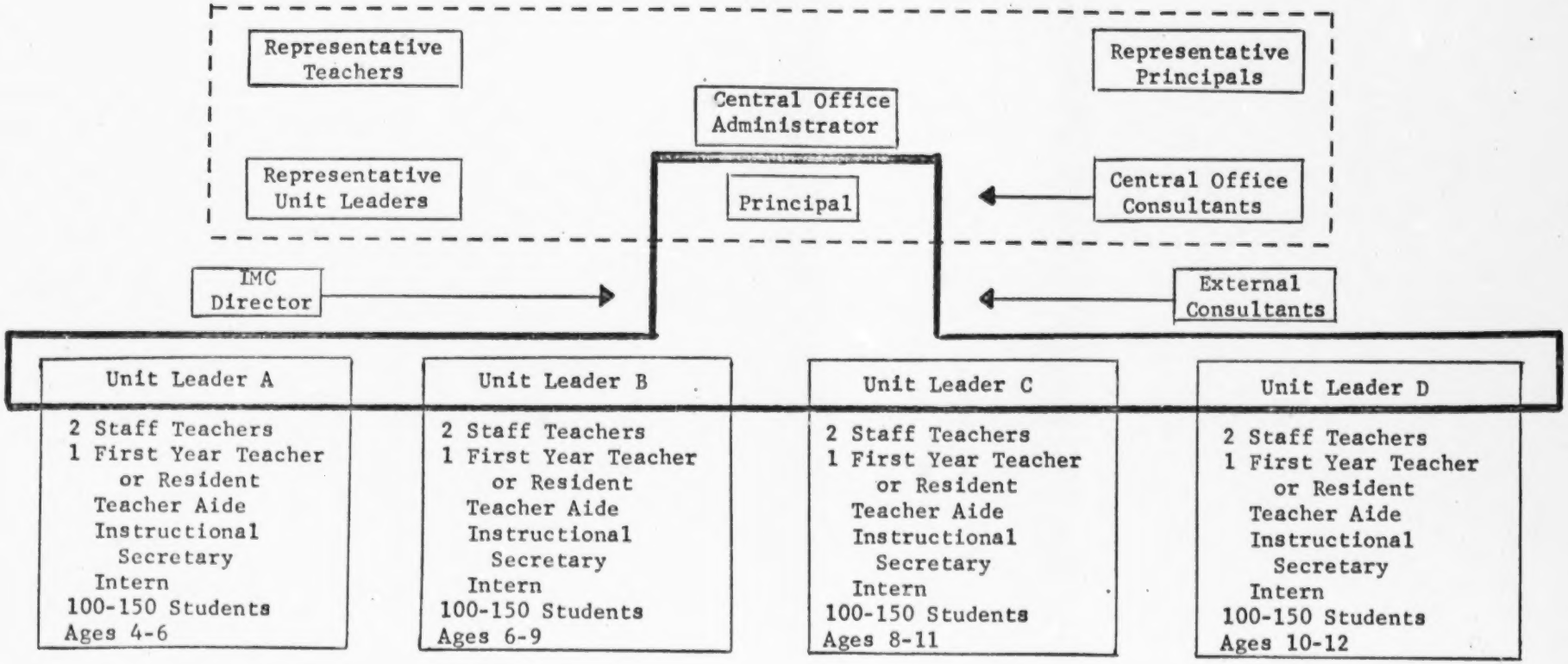
objectives a concern with the attitudes of their pupils should welcome evidence that the school environment can make a difference in these areas. Even those practitioners who are primarily concerned with academic achievement, but who also are concerned with the relationship between cognitive growth and affective growth should welcome this evidence.

Fears expressed by some practitioners that a team approach to education in the elementary school may substantially weaken the student-teacher relationship were not supported by this study. Similarily, the fear that pupil morale might be lowered because of the "confusion" caused by cross-grading and multi-aged grouping was not substantiated by this study. In fact, the study gave evidence that morale is higher under these conditions. Pupil-pupil relationships also appear to be improved in an IGE/MUS-E setting. The increased interaction of pupils within and across age and grade may be the greatest contributing factor here. Evidence of improved learner self-concept may be related to individual goal setting where failures measured against group norms are fewer.

Practitioners should be cautioned that the adoption of the IGE/MUS-E system does not, in itself, guarantee an improved learning climate as evidenced by the findings in Districts 1 and 13. Other factors such as teacher personality or home situations undoubtedly affect the learning climate as well.

Figure I

ORGANIZATIONAL CHART OF A MULTIUNIT SCHOOL OF 600 STUDENTS

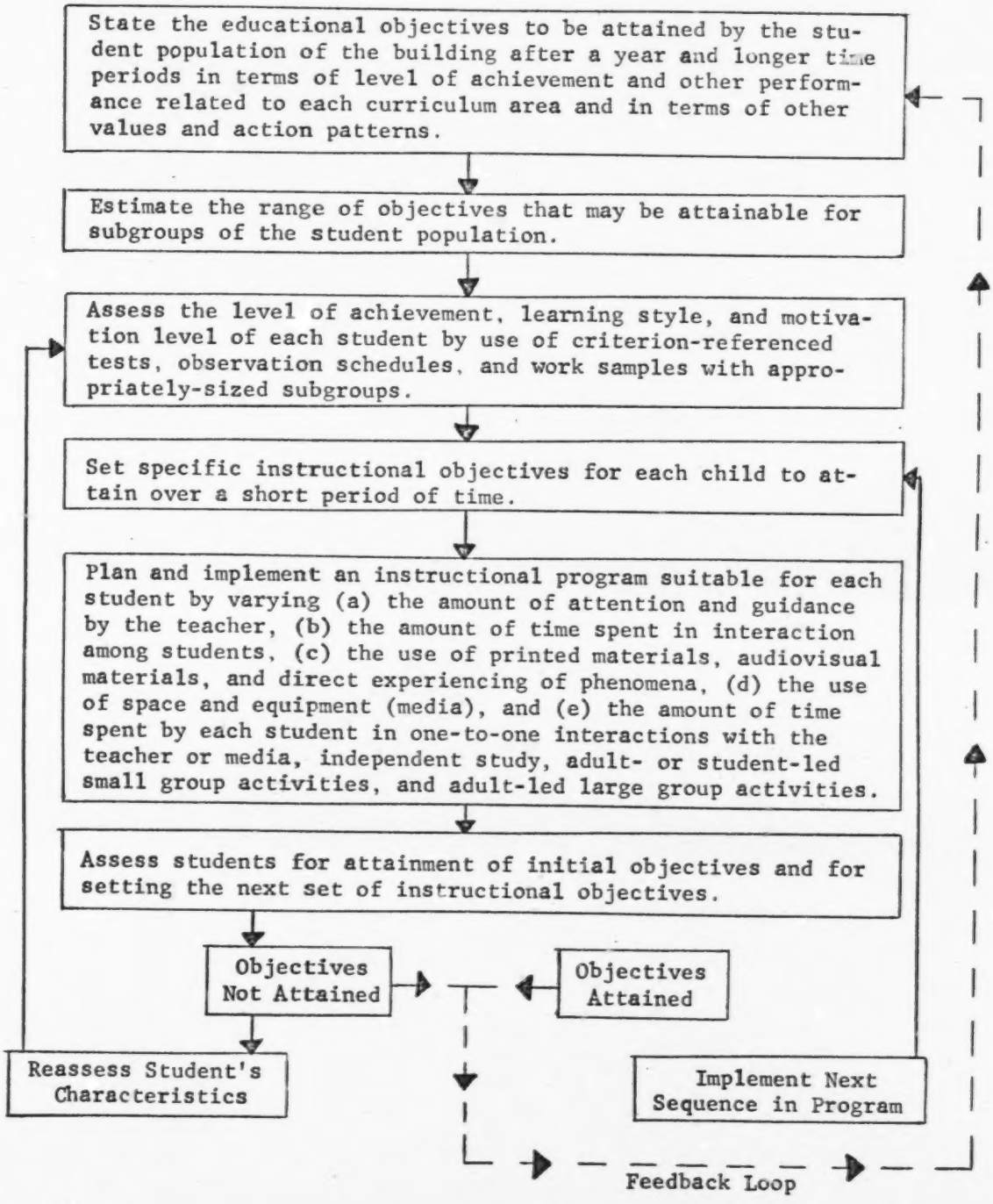


——— Building Instructional Improvement Committee
– – – – Systemwide Policy Committee

Note. — This figure was reproduced from a book by Klausmeier, et al., INDIVIDUALLY GUIDED EDUCATION AND THE MULTIUNIT ELEMENTARY SCHOOL: GUIDELINES FOR IMPLEMENTATION, (1971), p. 21.

Figure II

INSTRUCTIONAL PROGRAMING MODEL IN IGE


State the educational objectives to be attained by the student population of the building after a year and longer time periods in terms of level of achievement and other performance related to each curriculum area and in terms of other values and action patterns.
Estimate the range of objectives that may be attainable for subgroups of the student population.
Assess the level of achievement, learning style, and motivation level of each student by use of criterion-referenced tests, observation schedules, and work samples with appropriately-sized subgroups.
Set specific instructional objectives for each child to attain over a short period of time.
Plan and implement an instructional program suitable for each student by varying (a) the amount of attention and guidance by the teacher, (b) the amount of time spent in interaction among students, (c) the use of printed materials, audiovisual materials, and direct experiencing of phenomena, (d) the use of space and equipment (media), and (e) the amount of time spent by each student in one-to-one interactions with the teacher or media, independent study, adult- or student-led small group activities, and adult-led large group activities.
Assess students for attainment of initial objectives and for setting the next set of instructional objectives.
Objectives Not Attained
Objectives Attained
Reassess Student's Characteristics
Implement Next Sequence in Program
Feedback Loop

Note. — This figure was reproduced from a book by Klausmeier, et al., INDIVIDUALLY GUIDED EDUCATION AND THE MULTIUNIT ELEMENTARY SCHOO SCHOOL: GUIDELINES FOR IMPLEMENTATION, p. 19.

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